

Middle-Mile Advisory Committee
 May 20, 2022
 Meeting Recap and Transcript

The Middle-Mile Advisory Committee met on Friday, May20, 2022 at 10:00am PST at 10860 Gold Center Drive, Rancho Cordova and via virtual conference.

Agenda Item 1: Welcome and Overview

Chair Nichols welcomed everyone to the meeting.

A quorum for the meeting was established.

Member		Designee	Present	Absent
California Department of Technology	Russ Nichols		X	
California Public Utilities Commission	Alice Reynolds	Darcie Houck	X*	
Department of Finance	Gayle Miller		X*	
Government Operations Agency	Amy Tong		X	
Department of Transportation	Steven Keck		X	
State Senate	Lena Gonzalez	(Ex-Officio Member)	X*	
State Senate	Mike McGuire	(Ex-Officio Member)		X
State Assembly	Sharon Quirk-Silva	(Ex-Officio Member)	X*	
State Assembly	Jim Wood	(Ex-Officio Member)	X*	

*Remote attendance.

Committee members Quirk-Silva, Wood, and provided comments.

Agenda Item 2: Executive Report Out

Mark Monroe reported about:

- Procurement of at least 3,000 miles of fiber and other materials needed for the project. The contracts allow to expand upon the mileage.
- Future state funding to mitigate overall network build risks such as inflation, labor, supplies, etc.

Agenda Item 3: Project Updates

California Department of Technology (CDT) Deputy Director, Middle-Mile Broadband Initiative, Mark Monroe's update focused on CDT's combining the third-party administrator's and California Public Utilities Commission's approaches to develop a 10,000-mile statewide network.

Tony Naughtin and Erik Hunsinger provided the Third-Party Administrator update focusing on processes, work product to support transition from design to development and execution.

Rob Osborn provided a California Public Utilities Commission (CPUC) update focused on CPUC responsibilities in relation to broadband investments.

Hardeep Takhar provided a California Department of Transportation update focusing on project delivery strategy.

Agenda Item 4: Public Comment

Staff noted written public comments were submitted by (attached):

- Common Sense and NextGen California
- County of Santa Cruz

Public comments were made by:

- Philip Neufeld
- Diana Zake
- Katie Heidorn

Closing Remarks

Committee members had no closing remarks.

Mr. Nichols thanked Committee members, staff, and attendees.

The meetings adjourned at 11:30am PST.

(meeting transcript attached; video and presentation slides from meeting posted to Committee web site)

Transcript

MMAC Meeting – Friday, May 20, 2022

Chair of the Middle-Mile Advisory Committee. Let me welcome you to the Middle-Mile Advisory for the month of May 2022, we'll jump in here momentarily. This is our second meeting that we're conducting in a hybrid format, so we actually have folks in the room, as well as joining us online this morning. So, we will start momentarily with roll call. We do have a lot of content to get through this morning. So, please bear with us as we work through the agenda. And Jules, let me have you call roll for the members of the committee.

Good morning. Before we begin roll call, we'll review microphone instructions for committee members. For committee members attending in person, please click the speak button on your microphone console to speak. The button will show a red border when your microphone is on. Please click that same button to turn your microphone off. That button will not show any color when it is off. For committee members attending remotely, you should have the ability to mute and unmute yourself. We'll begin roll call. Director Nichols.

Here.

Commissioner Houck.

Here.

Chief Deputy Director Miller.

Here.

Chief Deputy Director Keever

Here.

Secretary Tong.

Here.

Senator Gonzalez.

Senator McGuire. He does have some scheduling conflicts and may join for part of the meeting if his schedule permits. Assembly member Quirk-Silva. Assembly member Quirk-Silva

Here, here. Here.

Thank you. Assembly member Wood. Before we start the meeting, a few housekeeping items. For those attending in person, we respectfully request that you both mute and turn off the speakers of any electronic devices you may have with you in order to avoid audio feedback interruptions. If you are not a committee member or presenter, please refrain from raising your hand until the designated public comment period at the end of the meeting to ensure we have enough time for presenters. Presenters, please cue Cole to advance slide. Committee members, if you're in person, please cue Russ. And if you are online, please raise your zoom hand, the Chair calling on you helps make sure you're heard. And finally, microphone instructions for presenters. For in person presenters, please click the push button on your microphone console to speak, the console

will show a small green light when your microphone is on. Please click that same push button to turn your microphone off. And there'll be a faint green color when the microphone is off. For presenters attending virtually, you should be able to mute and unmute yourselves when the Chair calls on you. And we do have a quorum, Chair Nichols.

Thank you very much, Jules. And during the introductions, Assembly member Wood was able to join us as well. So good morning, everyone. We will jump in to the agenda quickly. But before we do that, let me call on the members of the committee and see if they have any opening remarks. Let me start to my left with Secretary Tong, the GovOps agency.

No update today. Sorry, I missed the last meeting. But I believe GovOps was well represented. So, appreciate the uh, updates today.

Thank you, Secretary Tong. And to my right, Chief Deputy Kever.

Yeah, just a pleasure to be here with everybody to continue to move this program forward. And CalTrans' updates will be provided as part of the agenda. Thank you.

All right. Thank you, Mr. Kever. And let me run through the folks that are online with us. Commissioner Houck.

Yes, thank you. I'm here on behalf of President Reynolds today. I do have some updates and can provide those at the appropriate time on the agenda. And look forward to hearing more from the other members today.

Thank you very much, Commissioner. And from the Department of Finance, Chief Deputy Director Miller.

Good morning. No, no updates from us. Well, I guess I'll briefly just say, Mr. Nichols, that the state budget does propose in the out years an additional billion dollars for \$600 million in 23-24, and \$500 million in 24-25, just so we can continue to make sure that supply chain issues and labor issues are accounted for in terms of project planning. So, it's a contingency plan, as well as ensuring that the ring topography and the resiliency and the redundancy as we actually just learned from Dr. Wood and Mendocino County, how important that is with the outage that our program has all of those components to it. So, I know that I'm sure Mr. Monroe will go through that as well. But just a quick update on where we stand with the budget. Thank you very much.

Thank you, Miss Miller. Now let me go to Assembly member Quirk-Silva.

Good morning, everybody. And, yeah, we also wanted to chime in about the what we did see as the potential funding in the budget for 1.1 billion additional dollars to this project. I think one of the things that we'll keep echoing is, of course, what are the priority projects? When can we be able to give feedback to not only our assembly colleagues about where we might start, I know you'll be talking about the \$225 million that's been put out, today. But just to make sure that we're able to communicate to our colleagues about how this money will be used. That's it. Thank you.

Thank you, Assembly member. And finally, Assembly member Jim Wood.

Thank you. And I guess I just want to put an exclamation point on the point that Deputy Director Miller brought up, the concern about redundancy. And I'm fairly certain that in a large urban area, had what we experienced in Mendocino County happened, it might have just been a flicker. But when, when we don't have a really redundant system, and an outage happens, it wipes out entire

communities and, and creates a huge challenge for public safety, as well as business education, you name it. And so, it's crippling, and an area where we already have limited access, it's a challenge for us. And so, as we go forward, this redundancy is really important in every community, and not just urban areas. Thank you.

Thank you Assembly member Wood. And as you'll see in the presentations, those are some of the tenants of moving forward, that redundancy as we build up the network. So, with that let me transition directly into a presentation by Mark Monroe, the executive presentation for the middle-mile. Mr. Monroe.

Yes. Good morning, committee members. Mark Monroe with the California Department of Technology. And I want to start out with an executive report out here. Two big items I wanted to highlight. As I think somebody has already noted, this week we signed a couple contracts for a total of \$225 million for...towards the procurement of 3000, at least 3000 miles of fiber, as well as conduit vaults and other materials that we'll need for this project. And so, you know, if you look at the 225, it's about half of that is for fiber for 3000 miles of fiber, and the other half is for the other materials. And the contracts to allow us to expand that. And certainly, we want to build more than 3000 miles, but we wanted to really be able to mitigate against the future, you know the risk of future supply chain challenges as the rest of the country ramps up for their broadband projects. So that's, I think, a big, big, big achievement, I think we're all very excited about in terms of, you know, being able to get ahead of, get ahead in line in terms of materials in the years to come here. And then the other thing Miss Miller talked about was the BCPs. So, the May revision came out this last Friday and includes \$1.1 billion general fund for uh, this project...for the middle mile broadband initiative. It is not in budget year, but it is spread out over 23-24 and 24-25. And it's really to address several risks that, you know, we've become increasingly aware of, you know obviously, is one of the things we'll be talking through a little later today is the needs of the overall network, right? And so, we look as we, as we look at the ring topology, as we look at really, how we reach the unserved throughout the state. You know...we do see the need, the risk for the need to build additional miles. And as well as you know, regional exchanges, and repeater HUDS, all of these components that we need to be able to, to really have a fully functioning network. We also look at the inflation risk and you know, over the four and a half years that we have between now and when this project needs to be completed. Inflation can easily increase cost by more than \$400 million. And then, in addition to that, as other states continue to ramp up their efforts in broadband, we do see the demand for both labor and materials going up, which is going to drive costs up normally. And so, these are some...some big risks that we've identified. And the \$1.1 billion really is intended to be able to address those risks and make sure that in the out years, that we have the funding to be able to build as much of the system as possible. And I just wanted to note, I think the Legislative Analyst's Office had asked about why, why we would need the money now. And I want to be to be really clear that we need the money now because over the next year, we're going to be deciding how much of the system we can build and having Caltrans focus on that build segment. So, if we have the extra funding, that will mean that we have Caltrans design a bigger, a larger portion of this network as a build as opposed to leasing. And I think that's, we want to really understand that SB 156 really envisioned that we build as much of the system as possible. And so, you know, to the extent that any of these other cost pressures materialize, the balance or without the additional funding does end up being that we're able to build less and less more, so it's really important that we secure these funds now even though they won't be needed in terms of the construction costs until the future. And with that, I want to turn it over to Scott Adams, the Deputy Director for the Office of Broadband and Digital Literacy to talk through and provide an update on where we are with the NTIA funding.

Thank you, Deputy Director Monroe. And good morning, Chair Nichols and middle-mile advisory committee members and the public. My name is Scott Adams. I'm the Deputy Director for the

Office of Broadband and Digital Literacy. Next slide, please. As Deputy Director Monroe has said that, you know, the...I know that this committee has been tracking that including in the infrastructure investment in jobs, that there was \$65 billion designated to close the digital divide and invest in broadband and, you know throughout the nation. I wanted to provide an update that last Friday, May 13th that the NTIA...that National Telecommunications Information Administration released three 'Notice of Funding Opportunities' for three significant programs they are administering. The first is the broadband equity access and deployment program. The second is for state digital equity planning grants. And the third is the enabling middle mile broadband infrastructure program. If the state chooses, and we expect it will want to participate in these programs, um...want to give a heads up that both BEAD and state digital equity planning will begin this summer. Next slide please. Both the Department of Technology and the Public Utilities Commission are analyzing the notices of funding opportunities for these three programs that are quite extensive. Just wanted to give the committee members and the public a brief update on what some of the early analysis shows. The BEAD program...eligible usage are really for funding broadband planning, deployment and mapping equity, and adoption activities. There's a total funding pool nationwide of \$42 billion. Each state will receive a minimum allocation of \$100 million and may request up to \$5 million of planning funds in advance and the total state allocations will ultimately be determined after the release of the federal data map that will be released by the FCC. The immediate next steps are there's a deadline for the state to submit a letter of intent by July 18, 2022. And a deadline to request initial planning funds is due by August 15. On the digital equity planning grants, those are essentially to enable states to develop a digital equity plan, which is a prerequisite for subsequent funding for state digital equity capacity grants. The total funding pool nationwide for this particular program is \$60 million. California's tentative allocation is approximately \$4 million. And states must submit their applications in letters of intent to apply for this program by July 12. And then, the third program is the enabling middle mile infrastructure program. And that's allocated to fund construction improvement and acquisition middle mile infrastructure. There's about \$980 million in that you know, nationwide in that pool. The NTIA expects to make awards in that \$5 million to \$100 million range. There is no state allocation for this funding pool. It is going to be you know, entities will have to submit proposals, and they will be reviewed on a competitive basis and applications will be due for these funds by September 30, 2022. And that is my update.

All right. Thank you both, Mr. Adams and Mr. Monroe. That was an informative address. Let me go to the panel members first and see if we have any questions for other...for either of the deputy directors. Secretary Tong?

Not in this moment, thank you.

Mr. Keever?

Mr. Adams, I did have one question. With regard to the federal funding, are we able to utilize that going backward in arrears for any of the current costs? Or do you foresee any need to do that? Or do we feel that any funds that become available, we can put to use in the current program?

I thank you for the question, Mr. Keever. We're still analyzing the NOFOs. And we're gonna have to circle back to you on that question.

Alright, thank you. Miss Miller, any questions for either of the deputy directors?

No, thank you.

Alright, thank you very much. And Commissioner Houck?

No questions at this time. But thank you for the detailed update, appreciated.

Alright, thank you. Assembly member Wood, I see your hand.

Yeah, thank you. Question is, I heard what I heard from Mr. Monroe, is that this \$1.1 billion will allow us to build more and lease less. So, does that mean we're building over areas that we could lease? Is that the intent because I, I could see other potential uses for some of the resources like maybe helping people actually get access through communities on last mile projects and things as well. So... so, the question is, is this...is this to build over existing infrastructure that could be leased? Or are we looking to build more where there...that's what I heard so, I'm just...I like some clarification on that.

Sure, and so yeah, to your point, SB 156 really did envision the state building its own network as much as possible. Our highest priority obviously, is going to be any of the reaching in either communities that are unserved and the underserved communities throughout the state. And then we'll have to see, you know, how far the money takes us on that. There's also room to go ahead and lease, but I do think in some, some cases, where there might be existing infrastructure, but perhaps it's not been...uh, um...it is, it's been too costly for communities to use it or to have access to it or hasn't been open access in the past. You know, there will be to a certain extent, a need to build where some existing infrastructure currently is already, just as providing increased access and increased affordability. But really the existing...the, the funding is, uh...the additional funding is intended to continue to be consistent with SB 156 and trying to build as much of the broader network as possible.

Well, I guess...I guess what I'm thinking about when I'm thinking about building a broader network is, is trying to get access to as many people as possible. And so, I'm just, you know, I recognize that we want to build as much as we possibly can. And I appreciate that. But if there are lease opportunities of opening networks up, and the opportunity to build in other areas that are less served, how does...how does this play into redundancy? For example, this will...will this \$1.1 billion help in redundancy on areas that, that we build out in? Is that...is that a possibility? Or are some of these areas that are just going to be getting middle mile, are we...are we ever going to have that?

Yes so, as we...when we look at the broader needs of the network, the longer mileage, that redundancy is definitely part of that. And that's, you know, it's a valuable lens that our third-party administrator brings to the project in terms of identifying, you know, the need for that. So certainly, these funds will be used for that, as well as part of that broader middle mile need. So, will we...as we get an opportunity to see, you know, what the other bill that is versus what might be available for the leasing, or are we going to get a chance to see that information going forward?

Yes. And when?

So, little later this morning, we'll, uh...I'll be walking through kind of the, that broader map that we are looking at having Caltrans start the construction work on. And then I think for the first time this morning, GoldenStateNet will be presenting some map...some existing infrastructure, it's an ongoing project that they're working on in terms of identifying where that is to see what potential lease option alternatives we have. But again, you know I think we generally understand SB 156 you know with regards to the middle mile and the funding provided in them and the program is that the direction is we are able to build as much as possible so that we can use this one-time funding to really develop a network that the state owns. And so, a point I think on the leasing, and I'm using the term leasing for you know, to reference IRUs. We still have to make, you know, those are still commitments that have to be made every 20 years usually is the norm. And so, you know,

it's the...it's not exactly apples to apples in terms of, you know, comparing what you're going to get there, but I will say that, if to the extent we lease and to the extent we have IRUs, those are ongoing costs where the network will have to have those revenues, then will have to be charged. And so, we are trying to use the one-time funding as much as possible to establish this network. So, that ongoing, we have as much control over it and reduce costs going forward.

Mr. Wood, if I may, I think some of the questions that you're asking are actually in some of the subsequent presentation. So absolutely, happy to entertain those questions as we go through. But I think we do have some material for you.

Sure, I did have a follow-up question for Mr. Adams, if that's okay?

Yes, sir.

And it'll be brief. The um, Mr. Adams, the...you talked in in your slide about the BEAD, I guess is what we're calling it, you talked about FCC maps, what are those maps? What are those maps and what do they look like? And how does that compare with maps that we have at the PUC?

Thank you for the question, Assembly member Wood. Those maps have not been released yet. So, we don't have a lot of visibility into those. I know my colleague, Rob Osborn, from the Public Utilities Commission is online. Rob, do you want to add a little context to this question or to the answer?

Yes, thank you for your question, Assembly member Wood. The FCC is doing a data collection right now based on locations compared to what they were doing in the past, which is based on census blocks. So that data collection is still in process. And that will, that data will be I believe, used by the NTIA as the basis for determining the BEAD allocation. So, we don't have the visibility as Scott said to those maps yet, but we expect to be able to see those and have input on them when they come out. Okay, thank you. I think those maps are really, really important. All the maps are really, really important. Thank you, appreciated.

Assembly member Quirk-Silva, I saw that you'd had your hands up.

I've just really quickly was going to ask, where if we are successful in attaining some of these new funds, whether it's through the federal government or even through the state budget, which agency will administer this funding?

That's a great question, Assemblymember Quirk-Silva. As I mentioned at the top of my presentation, both the Department of Technology and the Broadband office and the Public Utilities Commission are analyzing the three NOFAs that are, you know, actually pretty complex, and will require a lot of coordination between state agencies working on broadband. And we continue to talk that through, but no designations have been made yet, in terms of which agency will be leading on those.

Alright, thank you Member Quirk-Silva.

Miss Miller?

Thank you, Mr. Chair, just a couple of points on the questions that were asking. I think they're really important and the budget contingencies that we discussed. So, the...we never want to oversimplify this issue of build versus lease, absolutely. First, we're looking at the entirety of the program and where there are cost efficiencies. So, to the extent, these infeasible rights of use

actually create cost efficiencies, and along with the third-party administrator, we negotiate leases, that are in keeping with the network that are open source, that provide the resiliency and the ring typography we're looking for, those will be part of the system. So, I really, I always tried to stay away, I feel like I use this word every single time at this meeting with binary issues, because it's not one or the other. It's how now does the state control and run an infrastructure that will serve the entire state. We continue to want to work with our colleagues and ISPs and cable in order to make sure that this, that these services are being provided. So that's the first and foremost what we're looking at is how to build that kind of resilient network for the state. So, we're working with building, of course, working with leasing. What I'm sure that third party administrator will speak to when they speak, is that there are nodes that some of our colleagues, like Google, and others have to run their systems that we'll be pinging off of. So, it's an entire network we're looking at. So, I just don't want to ask a question about this funding that's on building releasing when, really, every time we ask a question, it should be on the network as a whole. So, I really do hope that clarifies in terms of the funding in the out years, right. So, none of this funding is in the budget year, it's all in years... You know, like, well, I'm losing track of the years, but in 23-24 and 24-25, depending on where we are at those times, and if costs keep going up, to make sure that we have the contingency to complete the whole project, because we know that this is a very large undertaking. So, I hope that sort of clarifies. I hope that's okay, Mr. Monroe, in terms of clarification there, too. So, thank you, Mr. Chair.

Thank you, Miss Miller. All right, Commissioner Houck.

Thank you. And I just want to say I appreciate Assembly member Wood's questions and Director Miller's responses and just wanted to note that there are some projects that are in the works right now that are either tribal or local projects that are going to be in some of these areas where I hope that we are coordinating with them and looking at whether leasing may be better for areas that are already being planned or potentially funded to build out and making sure we're being efficient and cost-effective in that regard and having those discussions with local and tribal governments that may have projects in the works.

Thank you, Commissioner. Okay, that wraps up that first agenda item of the executive report. We'll now jump into little more detail actually, in the presentation. And let me start again with Deputy Director Mark Monroe. Mark, go ahead.

All right, very good. So again, Mark Monroe. We're going to go to the next slide here. And so, I think just to recap, we're all familiar, the Public Utilities Commission, as you know, have gone through significant effort in terms of analyzing statewide maps and where the communities are, and had estimated about 9,470 miles earlier this year, in terms of kind of what that map would look like. And so that's the first thing we want to point to, and it's really intended to, you know, consistent with SB 156, reach out to all of those unserved and underserved communities. Go to the next slide. And so, last month, Golden State Net had presented a map, it's more of a system level design that was about 8,650 miles long. And in the important lens that the Golden State Net had provided was that ring topology, and I hope we're all becoming familiar with kind of the importance of that in terms of reliability, it's much like telephones and we're, you know, we, for public safety purposes, we need to make sure that we have more than one access point to communities. And so that's really what the Golden State Net had built into the, it's recommended a system-level design. It had also done some, identified some routes, which were fairly close, you know, if you just think broadly about 99, and 5, right, two highways that kind of go the same places in a lot of ways in terms of the north-south direction. And there are places where they're fairly close. And there's some segments, you know, throughout the state where Golden State Net had recommended, maybe we choose one and so we're not too duplicative. And an important methodology that was used, as well, was the idea that, we call them spurs, but really, we create

this backbone, a lot of the unserved and underserved communities throughout the state really are, they're not directly on that backbone right there. They're off of state highway systems, but they're perhaps in more rural areas. And so, the approach taken at that map was that these could be funded using other last-mile funding sources. And so that we will create the state's backbone, but if they were more than, you know, they were within 25 or 30 miles of that backbone, last-mile funding could be provided, or it could be used to fund connecting back to the, what they're recommending the state bill. Next slide. So what CDT has been doing with that map, and kind of our approach what we want to talk through today is, if we were to combine the Public Utilities Commission's approach, which really kind of maximizes that the ability to reach out to those unserved and underserved communities, but combine it with the rain topology approach the Golden State Net had to come up with, we would have, the result would be a 10,000 mile map that we would want to have Caltrans start construction on or start construction work on right away. And it does remove some segments that were outside of that. GSN had recommended we build them out of the state for the purpose of that ring topology. So, as well as some others, you know, there were, I think, the assumption was that rings would be in the, they were targeting 50 miles, and so I think in some cases where we're removing some segments to make some of those rings larger, to drive down costs a bit there. And then, the really important part is adding back the spurs that would connect an additional 400,000 households throughout the state, and that's really central. Again, we felt that the purpose of this really was to reach those unserved and underserved communities, and so it's important to go ahead and fund larger or develop a network that is larger and does more to reach out to those communities. And what we do with this map is to give it to Caltrans and ask Caltrans to start its two-year construction process immediately. And so, that's important because, again, historically, it's, you know, about two years, we're pushing to go faster, I know Caltrans is as well, but, historically, two years is a reasonable timeframe. That means that two years from now is when Caltrans will be ready to go to construction, start signing construction contract, all of which need to be signed by the end of 2024. So, I think that's the other limiting factor, we're trying to work within here in terms of getting Caltrans started on all of these segments, so that they can start that two-year process. Next slide. So, we're gonna kind of take two approaches here. You know, we're gonna get to the statewide map in a second. But what I wanted to kind of start out by zooming into the Santa Barbara area here, I think this helps kind of illustrate the different approaches. So, we're starting here with Golden State, the map that Golden State had presented last month at the MMAC meeting. Go ahead and go to the next slide. Alright, so this slide just adds in some black lines. This is really where this adds back the components of the Public Utilities Commission map and you can see how they run down through Lompoc and through Santa Barbara, and, you know, to connect those areas as well. Again, this can all be funded using last-mile funding, but these are all areas that have unserved and underserved populations that the Public Utilities Commission had identified. Next slide. And so, I'll kind of point to two things here. We all see the dotted line or the hash line on the right. That is a segment that, for ring topology, absent building out this other PUC segment, you would want to build in that we're attached to the dotted line is there. And what that will do is provide that resiliency for anybody within that ring. And so, the approach we're looking at taking here, one of the things we have to consider, is that we remove that and then instead build out that PUC map. So, we're still getting the ring, but we're getting closer to the communities that were recommended by the Public Utilities Commission. And if you want to go to the following slide. So, the map that we will be recommending, this is what that would look like. And you can see that it has a number of spurs to reach out to the communities that I was talking about. So, it has a number of spurs that reach out, but it also provides that broader ring topology that's needed for that system resiliency for anything that was within that ring. Next slide. There we go. So, here's the broader statewide map, and again, you can kind of see this is the first map here is the Public Utilities Commission's map of the 9,470 miles. And again, you can see, especially going up to the valley, but even in most of the rural areas, you're going to see those spurs that are being recommended. We're going to the next slide. This is where we'll be able to see some additional segments being built in between to make,

you could kind of see, there are more rings here and fewer spurs. And that's, I think, the thing to point out, the rings are good because they add that resiliency. And in this scenario, the spurs would be built out using last-mile funding. And then if we move to the last one, you can see what we're recommending, but we're going to ask Caltrans to start doing construction on is that a combination of those. So, we still have a number of rings. So, we still have a number of rings to provide that resiliency, but we also have the spurs added back to really reach those communities that are out there. This is something that, you know, we've continued to receive comments from members in those communities, and I think they were important participants and partners in the Public Utility Commission's processes in terms of identifying here's where the unserved and underserved populations are. What I want to do is look at, just kind of to add scale to this, I guess, when we look at building out these spurs, you know, one of the lenses that we've used in terms of is the number of unserved addresses per mile, by really building out these spurs, we end up potentially reaching communities. And you know, there's more than 420,000 households throughout the state. And I think that really underlines the importance of this and kind of why you want to take this broader approach. And so that's really, again, the policy reason for us doing this project to begin with, going forward, what we will do is give this to Caltrans, we will have them start that construction work, that two-year process. Part of that process will be to identify the actual cost estimates for building this network. And depending on what that cost is, that's going to tell us ultimately how much we can afford to build versus how much we need to lease. At the same time, we will be doing a market assessment to get a better understanding for those last-mile providers where dark fiber service versus lit service might be needed. It's going to help us prioritize in terms of the extent we were able to choose between building in certain areas and leasing in certain areas. We want to make sure that we make those choices that are consistent with what the last-mile provider or the community needs are. The Golden State Net, as I mentioned, will be presenting kind of the first stage of a map of existing infrastructure throughout the state. And as we refine that, that's going to help us understand kind of what that alternative is, as well as Ms. Miller talked about, really looking at that network and how to best serve the state, where it makes the most sense to, you know, to lease existing infrastructure to make sure that the state's dollar goes as far as possible. So, I think with that, I want to turn it over. I think that's the last slide. And so here we go. Yeah. Go to the next slide. It just covers what I just talked about in terms of our plans. And with this I want to kind of turn it over to, well, first of all, answer any questions that you might have and then turn it over to Tony Naughtin from the Golden State.

Thank you, Mr. Monroe. Before Tony starts, two quick things, I want to welcome Senator Gonzalez who was able to join us as well in this mixed format. It's hard, I think, for folks in attendance, both virtually and in the room, to tell when people have come online. So welcome, Senator Gonzalez. Before we move forward. Did you have any comments, opening type comments for the proceeding?

I just wanted to say thank you so much for, again, all the great work, I thank my colleagues as well for being on and continuing the good work across our state. And I look forward to the continued progress. So, thank you so much for having me. And I'm so sorry, my video has been off, talk about broadband issues. My apologies.

All right, thank you, Senator Gonzalez. Any questions from the panel members for Mr. Monroe? Secretary Tong?

Yes, just more of a question and perhaps a clarification, Mr. Monroe. I don't know if there's a way to go back to the earlier slides. If not, it's okay. I'll just talk through it. There were, and this perhaps link to the earlier question, the extra funding that has been requested right now, it's not necessarily all attributed to the extra mile, but it was more as a planning practice measure because there are some differences between what the GSN recommended, as well as what the original CPUC map

has laid out, that CDT is looking at continual analysis to make sure that all the area that needs to be covered, especially in the most underserved area, are being accounted for. And that's one of the message you came across on that particular map demonstration, right?

Exactly, exactly. And that's an important distinction between, you know, the extra funding. So, when you look at this map, there's additional, certainly an additional pressure. And this is one of the cost pressures that we identified, or that we're trying to address with the funding. But it's either, you know, I think inflation and the increased demand for labor and materials. It's also, you know, there's some important cost risks there. So, it's not intended to be a one for one, we want to make sure that we develop a map that, or we develop a network, that really addresses that meets the needs of the state and really links up the unserved and underserved populations. And that's really what we're trying to achieve with this map, but right, it's not a one for one with the BCP. And BCP really is intended to address a broader range of risks.

Thank you. Assembly member Wood.

Yes, thanks. With regards to the maps, there was one map that showed a ring that is in far northern California that extends up into Oregon. And that's important for Del Norte County that I represent because it's allowed some redundancy for them and access that they have that other parts of my district don't. So, is the intent to maintain that redundant ring? Because I'm unclear how that map interacts with the other maps? And there's, you know, is that ring going to go away or help me understand how that interacts? Because there is redundancy there that I would hate to see go away.

Great question. There is no attempt to reduce any redundancy. When we look at that first map that really goes up into Oregon, that was being identified as a potential build location. And we're just saying we don't want to build up there. And to the extent we have existing resiliency, existing infrastructure that we can use for resiliency, we really want to focus on that so there's absolutely no intent to reduce any redundancy.

The reason I ask is I did see, I thought I saw in some of your earlier comments that some redundancy in some areas would be reduced. Did I miss something? That's what I saw. Yeah, so to clarify there, the risk on the redundancy goes down to the spurs. Right? So, when we look out to some of those communities, you know, we can build one line out there, and then we're providing that link. But we're not building two lines out there. And I think that's where the primary risk that we're looking at is, we've done our best to map out a network that does provide that resiliency. But if you were to double, you know, say, both sides of the road in terms of trying to provide that redundancy, that drives up costs and mileage substantially. So, the idea is, you know, there is some increased risk to those communities on the spurs, but we're looking for the time being, providing that funding, and kind of the approach is too that, we build out to these communities, and then we still have the last-mile providers to come in. And they will have options to provide for resiliency as well on those spurs. And so, I think we'll have to partner with them on that.

Thank you.

Thank you, Mr. Wood and Mr. Monroe. And Mr. Keever has a question.

Also, Mr. Monroe, I want to acknowledge the challenge that you have had in trying to develop these maps, trying to pull all this together very quickly. I want to make sure I understand, though, it sounds like we may have some benefits though at the same time, and that by having multiple sources of funds, so we have the federal COVID funds, we have general fund dollars now that

may be coming in, and then we have the BEAD from the federal side, that may also be opportunities for us. My question is, in moving forward, I believe we can go forward and do a lot of the pre-construction work. And fortunately, we have a lot of very strong Department of Finance, and other expertise on this team, and then have the ability to use those funds strategically. So, for instance, on the spurs, it sounds like we have several options on how we might want to fund those. But from that, then we can take advantage strategically which pot to pull from, and we don't need to determine it necessarily today, but at the time of allocation. Does that broaden our opportunities?

Yeah, I would say absolutely. Absolutely. And in addition to that, you know, I kind of go back to why it's important to secure, you know, any funding we can today because really, you know, by going out with a 10,000-mile map, Caltrans can do the two years of work that it needs to do to be ready for those opportunities.

Thank you.

All right. Other questions from committee members for Mr. Monroe. All right. Not seeing any, we will transition to a presentation from GoldenStateNet, our third-party administrator for the middle mile network. Let me introduce Tony Naughtin. Tony, go ahead.

Thanks very much, Russ. Tony Naughtin with GoldenStateNet, the third-party administrator, small correction to the introduction slide there. My title is actually president and chief operating officer. I don't want to unduly promote myself there. If we can go to the next slide, please. Thank you. Right now, GoldenStateNet is very focused on work efforts and processes to support a transition for this entire program from a design phase really to a development and execution phase. And the key activity in that transition to support the execution phase is to inform support and enable an optimization process for CDT so that CDT can make final decisions on network development, of which there has already been quite a bit of discussion in this meeting this morning. And network development, of course, is a newly built construction of optical fiber versus purchasing indefeasible rights of use for dark fiber. And then the third mode of development is joint build new optical fiber with other open access network operators. To talk a little bit more about the optimization process. I'm accompanied today in our presentation by Erik Hunsinger who is our Vice President for network development. He's going to explain the optimization process and related factors in more detail, Erik.

Thanks, Tony. Let's go ahead and move into the next slide. Thank you. So, as we're working with CDT to analyze the elements of build or buy, there's several factors. I believe already, it's been mentioned that we should be working with local entities to understand projects that are in process. And we do have a handful of opportunities, where we're looking to build approximately 1000 miles of joint build opportunity. In those conversations, the ultimate goal would be to establish a network that the state wholly owns for its own purposes. So, we're going through that process with individual carriers, which include national carriers, it also includes local areas, we've already covered one of them substantially in partnership with <indiscernible> in the Coachella Valley. And then in addition, we are talking to tribal entities. So that's a small mix of the potential build partners that we are looking to partner and in develop resiliency for regions in the network. In addition to that, we are also evaluating commercial partnerships, where it makes sense, but as Chief Deputy Director Miller already noted, those partnerships need to meet a bare minimum of functionality. If contractual terms as Deputy Director Monroe laid out aren't meeting the needs of the state's network, they're really not useful. And every commercial entity has a different priority and business model that defines those IRUs or leases in contractual terms. So, what are the minimum elements to partner with carriers, it has to be a true indefeasible, right of use, for the use of connectivity. Come one, come all, broadband for all, open access. That's a that's a minimum level of

relationship that we need to enter into. In order to utilize commercial networks. In addition to that flexibility of interconnection, we can't be tied to networks that do not allow for last mile connections that are not yet developed for communities. Typically, commercial carriers only allow interconnection, where they currently have splice points in their existing network. And often that's a rule of thumb is about every five miles. If we're not able to access those points to develop last mile connectivity, contractual terms, the relationships with those carriers aren't really useful. So those are the minimum bars that we've set for the state to begin to analyze, CDT to begin to analyze the value of commercial partnerships. And then in addition to that, there's some other elements of costs, and feasibilities and routes that also dovetail into that to reduce the overall time to market and the cost of the overall contractual value to the state in terms of the network. Next slide, please. So, I've already covered a little bit of this, numerous commercial entities aren't interested in open access network for competitive reasons. So, each individual commercial entity, we're interested in talking to anyone that would come to the table. But we have to figure out whether the partnership works because the state's network priorities are to serve the last mile and often that can be competitive in nature. So that's an element that each business entity must understand in order to partner and reduce their costs as well, particularly in joint builds. In addition, we're working to identify any new opportunities across the state to reduce the overall construction element of the network. And that would include partnering with the CPUC and CDT and evaluating the existing CASF grants or pending CASF grants, that might be interested in, perhaps participating in construction or post installation buying from the state network after it has developed. Next slide. And here are some of the routes that are a part of current open access. I want to apologize, there's one route that we do not have on here. It did not make the cut in commercial terms for representation on this map, digital 365 has also extended IRU terms to us. And I apologize to the senators and assembly members for not having that on this map. It will be there next time, but they have tendered an IRU offer. These routes represent commercial carriers who have made proposals. It's not limited to these routes, we're continuing to explore additional relationships as they become fruitful to valuation for by CDT. And so, I think you can say that there is, I believe, assembly member Wood noted that there's substantial open access network to the state. We look to leverage those where it is meaningful, and meets the minimum threshold for value to the overall network. And next slide. Here, we're just seeing the statewide map again, which Deputy Director Mark Monroe covered in detail. Thank you. I'll hand this back to Tony Naughtin for some additional points. Thank you.

Thanks very much for that, Eric. In addition to finalizing network routing designs, with CDT, which is central to the optimization process, the third-party administrator is also continuing to work closely with Caltrans on new build specifications and practices. Other key activities that also represents significant portions of the budget include a focus on what are called ILA repeater huts, these are the retransmission huts that re amplify the optical fiber signal approximately every 50 miles in the network. We're very focused on the capital expenditures needed to support those very much focused on the locations as well as the maintenance cost ongoing for those repeater huts. And of course, there's continual work on analyzing and making specific recommendations for active network gear. This refers to switches, routers, servers, that will be used to provide a high-quality production network service on the middle mile network. Other activity that's worth mentioning for the past month or so since the last MMAC meeting, GoldenStateNet submitted an initial draft of what's called the program plan. I made reference to this once or twice in earlier meetings. The program plan is a network implementation playbook that characterizes the steps and processes to be followed in developing this network. We're also working closely with CDT right now on creation and refinement of a business model, which projects operating expenses and revenues projected for the network in the years ahead. The real focus and purpose of this business model is to project and ensure as much as possible long-term operating and maintenance costs for the middle mile network, which really needs to be a self-sustaining network for these purposes. And then, the other thing worth mentioning right now in terms of ongoing

activity, we've been working closely with CDT and its consultants in the development of a survey for last mile providers. That survey issued out to ISPs and telecom carriers, primarily last mile providers, if not exclusively last mile providers went out recently, it will be coming back within the next month. And then of course, we will work closely with CDT and its consultants to analyze those results, as they will shape the services that are offered, the pricing for those services and related operational aspects that the last mile provider customers of this network will be interested in knowing about and want to have input on. That concludes our presentation. Are there any questions we can answer?

Thank you, Tony. Let me ask the panel members in the room, any questions for GoldenStateNet. No? Any of the members online? I see Commissioner Houck.

Yes, actually just a comment connecting some of the information here with the last presentation. I just wanted to note how much we appreciate the planning for the spurs that were identified on the maps and just note that they're really vital to making sure that we can meet our last mile needs. So, I appreciate you walking through all of that and just wanted to highlight that point.

Thank you, commissioner. Any other questions or comments from committee members online? Not seeing any, thank you very much. All right. Thank you both Tony and Eric for the presentation. Let's move on now. Next item on the agenda is a presentation from Mr. Rob Osborn on the Public Utilities Commission. Go ahead, Mr. Osborn.

Thank you, Mr. Chair. Good morning. I'm Robert Osborn, director of the Communications Division at the California Public Utilities Commission. The committee... Go ahead to the next slide, please. The committee is familiar with this overview from previous meetings. But since our last meeting, the Commission yesterday adopted program rules for the California Advanced Services Fund adoption, public housing and consortia as well as funding allocations for fiscal year 2223. We're doing outreach through a variety of association meetings and anticipate increasing the outreach in June as program details are finalized. These include the broadband for all roundtables hosted by the California Department of Technology, the Caltrans broadband meeting last week, individual meetings with counties such as with Butte County and Chico last week, and also county CIOs next week. We also have a survey underway right now for local governments to assess their communities' broadband assets, their broadband needs, and interest in state grant programs. The survey responses will inform the program development and outreach. And we're asking survey respondents to respond by May 30. And I'll include a link to this survey in the chat. This provides us an informal way of soliciting information and engaging beyond the formal proceeding process. Next slide, please. So, one of the challenges facing not just California but the nation as a whole is how to incentivize broadband deployment in areas where private industry has been unable to justify due to insufficient revenue or high capital on operational expenses. The table on this slide categorizes various levels of private and public entity involvement along the value chain in the broadband networks in ways that may be helpful for grounding discussions about last mile programs. The table goes from fully public models in row one, the very top where it says municipal broadband, down to fully private in row five where it says full private broadband. The columns divide the type of work that can be assumed by either a public or private entity over the course of full network development. You'll see on the slide, the blue shaded cells are the work of public entities that they do in the deployment. And the gray cells are the private entity activities, I want to highlight two points about this table. First, as shown in this slide. There's no one size fits all solution. There's a variety of different solutions that may be applicable to California. I want to note that for the bottom row, the full private provider option, the public entities still involved in managing the rights of way utility infrastructure. So, in other words, private public entities still have a role in the matter how broadband infrastructure is deployed. Second, the rightmost column lists the city where these models have been deployed. And you'll see in row four, where it says private

developer open access. The city of Fullerton is an example of where sci-fi networks built a privately funded service-based competition network. And that's where one private entity owns the network infrastructure. And so, access to that infrastructure to two or more internet service providers who compete for customers. So, if you think about the service you currently have in your home today, it could be one ISP that owns the cable or telephone line going into your house. Imagine that being a pipe instead and that pipe has many service providers offering service over it. So that is an example of how that would be realized. The CPUC recently hosted a workshop, which was recorded with the California Advanced Services Fund annual workshop. And one of the panels focused on examples of how municipal broadband and local governments can be involved in broadband deployment and I can provide a link to that video later. Now we'll move on to the last-mile program updates. Next slide, please. So, the local agency technical assistance, just to recap the \$50 million dollars in technical assistance grants will be available to public entities and nonprofits to help them prepare to provide service in their communities. The funds can cover a range of pre-project costs to deploy last mile broadband infrastructure, including environmental permitting, needs assessment and strategic plan. For the decision, individual grants are to be no more than a million dollars per applicant. And there's an expedited process for requests of \$500,000 or less. A local agency is broadly defined in the program rules. It may be a city, a county including a county service area, Community Services District, Public Utility District, municipal utility districts, Joint Powers Authority, local educational agency as defined in the Education Code of sovereign tribal governments and electrical cooperatives. The CPUC is preparing the program materials and processes to open the grant making window in late June or early July, and we're planning to host a recorded webinar before then. Next slide, please. The loan loss reserve fund just as a recap, it's the broadband package, committed \$750 million over three years for loan loss reserve funds. The purpose of this fund is to assist local governments and nonprofit entities and securing financing so they may build out their last mile infrastructure. The loan loss reserve is a form of credit enhancement that will provide collateral to local governments and nonprofits for bond financing. The timing for the proposal for this is August this year, and comments and workshops will follow, and this is scoped into the California Advanced Services Fund proceeding under Commissioner Houck. Next slide, please. The last mile federal funding account, so the lion's share of the last mile federal funding will be granted through the federal funding account. The CPUC adopted program rules last month, and the rules include an allocation by county of funds out of this \$2 billion dollar model for last mile project. The CPUC is targeting to accept applications by July. And the priority are, we're going to be publishing a list of areas that are priority areas based on unserved locations and that will be the basis for submitting applications. Next slide, please. As I mentioned earlier, the California Advanced Services Fund. Yesterday, we the PUC adopted program rules for adoption, public housing, and consortia accounts as well as deciding on the allocation of funds among those sub accounts. As you're aware, over the past decade, the California Advanced Services Fund has supported a large range of investments. The program was updated with the legislation last year and the decision yesterday formalized those in program rules. Just as a reminder, the adoption account as of last year had awarded 212 grants for adoption projects, 179 grants for digital literacy, and then in public housing...128 public housing adoption grants, and 322 public housing infrastructure grants. With the rules now adopted, we're targeting to begin accepting applications in late June, early July. We're working on a proposal now for the infrastructure grant program. And we're working to get that out up for public comment very shortly. And this concludes my remarks.

Thank you. Thank you, Mr. Osborn. Any questions from panel members in the room? No? Commissioner Houck, I see your hand up.

Thank you. I just wanted to make a couple of additions. I wanted to just note that the public housing program that Rob just talked about part of the rule updates included...includes farmworker housing and the definition of public housing. And there will also be a proposal from our

staff to address the broadening of that definition to additional low-income housing that'll be vetted publicly and to just note that the PUC is doing tribal consultations throughout the state right now through a rulemaking on our tribal policies and broadband issues have come up in almost every case. So, we are meeting with tribes across the state on broadband issues, and my office is planning to meet with unserved and underserved communities throughout the state. And we'll be going to different locations to talk to local governments and getting input and engagement regarding the loan loss reserve program, and some of the additional updates that we're vetting, and we really appreciate all of the work that our staff has been doing and the coordination between the PUC and CDT on all of these important efforts and just want to note how much time, effort, and work has gone into this by both agencies. So, thank you.

Thank you, Commissioner. Any questions or comments from other committee members online? Thank you very much. I'm sorry Miss Miller, did I see your hand?

You did because...oh, sorry. I do just...Mr. Osborn on the loan loss reserve program. Could you just review the timing on that one more time? Just so I'm clear on kind of when the funds will be available, thanks.

I need to have a staff proposal for comment in August. And prior to that, we'll be holding, uh...trying possibly having public comment and workshop on that.

Okay, so potentially if the proposals up in August, what does that mean for when the plans are available?

So, we're targeting to have funds available in the first quarter of 2023.

Okay, thank you. Thank you.

Any other questions or comments from committee members online? Alright, thank you very much, Mr. Osborn for the presentation. All right, moving now to our final presentation of the day from Caltrans. Let me introduce Hardeep Takhar. Hardeep, go ahead.

Good morning, this is Hardeep Takhar. I work with Caltrans serving as the broadband middle mile network program director and we'll be providing a progress update today. I'll be covering the delivery strategy, the target dates, and the status program that we're working on, and then the work that's underway at this point. Next slide, please. Caltrans continues to collaborate with the Department of Technology to develop projects to build a middle mile network on the state highway system. Based on the anchor roadmap that's been provided to us, this map includes the initial 18 project locations that will cover approximately 845 miles on the state highway system, have been approved to begin pre-construction work, which is critical in our engineering and environmental studies. And the remaining non-initial 18 locations statewide that approximately cover seventy-two hundred fifty-five miles. In order to accelerate building the middle mile network, we are evaluating existing pilot projects to identify dig-smart or dig-*want* opportunities that will leverage ongoing highway profits by lowering the capital costs to build the middle mile network infrastructure and also avoid and minimize disruptions caused by the need to rework in these areas. Specifically, we're looking at highway projects currently under construction, and those that will be in construction in the next three years. Where existing highway project opportunities are not viable, Caltrans will develop standalone projects dedicated to build a middle mile network. At the initial 18 locations, work related to preliminary engineering and environmental studies is underway as you can see on the schedule. We're also concurrently reviewing the remaining non-initial 18 project locations, mapping, identify project opportunities in June with a target to begin preliminary engineering and environmental studies in July. Our goal is to complete the pre-construction work

for both the initial 18 and the non-initial 18 by July 2023, complete preparation of the construction contracts by June 2024, and construction award by no later than December 2024 in order to complete...in order to comply with the American Rescue Plan Act on timeline requirements for encumbering funds. For project locations that are more likely to have challenges with environmental clearance, permitting, and working around existing utilities, we will consider opportunities to streamline project delivery to get us to the December 2024 construction award by working with resource agencies to develop programmatic permit approvals and consider alternative delivery methods, in addition to the traditional design, build, delivery method that which include construction manager general contracting, job order contracting, and design build where appropriate. Target will be to begin construction no later than January 2025. And complete construction by September 2026 to allow time for project closeout but no later than December 2026 in order to comply with the ARPA timeline requirements for the liquidating expenditures and project completion. Next slide, please. At the initial 18 locations work related to pre-construction, which is preliminary engineering and environmental studies, is underway. Multiple projects are being developed within the 18 locations. Today we've identified 9 dig once opportunities that plan to build approximately 90 miles of the middle mile network and 22 standalone projects that will build approximately 605 miles of the network, adding up to a total of 31 projects to build, 695 miles of the network. The remaining 150 miles within the 18 locations are under evaluations to identify additional projects. Our target date for completing preparation of construction contracts is June 2024. We expect construction to begin at the initial 18 locations as early as June 2022 through December 2024. Next slide, please. And the remaining non-initial 18 locations, we are currently identifying project opportunities by June 2022, which will include again dig once and standalone projects with the goals to begin preliminary engineering and environmental studies in July 2022. Target date for preparation of construction contracts is June 2024. And we expect construction to begin on these non-18 initial locations by June 2023, all the way through December 2024. Caltrans is committed to this broadband initiative and delivering the middle mile infrastructure to meet the needs and connect communities across the state. As we receive new updated statewide mapping from the Department of Technology, we will follow the project development process to identify challenges early on and find opportunities to streamline project delivery through the use of programmatic permits, and alternative delivery methods. And that concludes Caltrans' update. Thank you for your time and I'll take any questions.

Thank you, Mr. Takhar. Let me ask the panel members in the dais if there are any questions for Mr. Takhar? Or the committee members online? Assembly member Wood, I see your hand.

Yes, a question I saw on the timeline that was up there, there was a reference to construction beginning in January 2025, completing September 2025. What is that? Because your slides didn't reflect that. So, your slides reflected ongoing construction. So, what is that construction that's supposed to begin in January 2025.

That is the construction for all current construction contracts we are planning to begin, whether it's for the initial 18 or the non-initial 18 locations no later than January 2025. And our goal is to complete construction by September 2026 to allow enough time to close out and make payments to the contractor and close out the projects by December 2026. We need two to three months to close out the projects, make sure the expenditures are all processed.

But you are actually trying to do construction. You're not...you're not holding back on construction?

No, no, no, we're not. We're starting construction, I think we're gonna as early as June 2022 where the opportunities are on the existing highway projects, we will begin construction as early as June 2022, but no later than January 2025. That is the plan.

And just one thing...curious, how much more dig once opportunities do you anticipate out there? And this is personal for me, I've been trying to push you guys on dig once for years. And I'm impressed that you found 90 miles on the first 18 projects but only found a mile in the...you know, in the several years before that when you had the opportunity. So how many more miles do you expect?

We're currently evaluating projects, we will have a more specific feedback at the June meeting. We're waiting for, we're looking at about 45 ongoing construction contracts like right now that overlap with the anchor build mapping that we've been provided so and then there's certainly projects in the pipeline that are in the design, planning and design phases that will provide opportunities. So, we'll have more of a specific update at the next meeting.

So, you'll have...you'll have more numbers on dig once then?

Yes, yes.

Okay. Thank you.

Alright, thank you Assembly member Wood. Any questions from other members of the committee online? Alright, thank you very much Mr. Takhar for the presentation. At this point, we'll move on into the public comment period of the meeting. Jules, if you will give the rules of engagement for public comment, please.

Certainly, in order to allow everyone who would like to make public comment the time to do so. We respectfully request that the comments are limited to one person per entity and two minutes per person. In order to have the most equitable participation possible, we are not using the zoom Q&A function. So, if anyone has submitted public comment via this function, please either provide public comment during this portion of the meeting, or submit public comment to the committee website. We'll go in order of online public comments, virtual attendance and in-person attendance. We do have two groups that have submitted online public comments. Is there anybody in attendance from Common Sense and NextGen California? They submitted recommendations about funding for broadband deployment and adoption. Mr. Neufeld is that you? Mr. Neufeld, we're asking you to unmute. You should have a button that's popping up.

There we go. Got it, thank you.

Before you go ahead, are you representing Common Sense Media or NextGen?

No, I'm representing the Fresno Coalition for Digital Inclusion.

Okay, so we're going to go ahead and wait because we're doing the online submissions first. And then we'll go ahead and we'll attach that Common Sense and NextGen California submitted public comment to the meeting recap/minutes. We also received online public comment from Santa Cruz 1st District supervisor for future middle mile projects for Santa Cruz residents, particularly those in mountainous regions. Is there anybody from Santa Cruz here? If so, please raise your hand. Not seeing any hands. We'll go on to virtual public comment, please raise your zoom hand to make a public comment if you would like to do so and we'll go with Mr. Neufeld. Please go ahead and unmute.

Thank you. So, I just want to first of all say thank you for this work, all the work that's been done designed rollout network to serve all California residents, especially those most underserved. The

Fresno Coalition Digital Inclusion is a cross sector collaborative of almost 30 organizations. And we appreciate the meetings we got with the CPUC, GoldenStateNet and Broadband office, following our public comment and email on the April middle mile advisory committee meeting. We just want to remind because we haven't yet seen that in the work here that the existing FCC and CPUC maps, especially the CPUC preferred scenarios significantly underrepresented the underserved and unserved in our region. For example, the city of Fresno, it shows less than 5000 are underserved. Our data on the ground shows 25,000 to 75,000 residents underserved and unserved—a big difference and that means that, that impacts those sort of analysis where the middle mile goes, where open access middle mile is crucial to create competition and quality service in our areas of high poverty. Similarly, FCDI provided priority areas to middle mile to ensure that last mile opportunities for the most unserved areas are possible. And this guidance was based upon local expertise from the county, the city, our K-12 organizations, Fresno housing. So that's where we reflected what's necessary and regardless of funding source, middle mile, last mile, we just want to make sure those show up on the map, and including the southern part of the city of Fresno. One last piece is we just also want to advocate for regional interchange in our area, I would suggest also in Bakersfield. With that, I'll turn it back. Thank you.

Thank you. Diana, I don't know how it's pronounced, Zake or Zakey. Apologies. Please go ahead. Hi, it's Zake. And we were wondering who at GSN if it is GSN is the best contact for entities who are interested in IRUs, or the build partnerships. Tony or Erik, can you please respond to that?

Yeah, I'll be happy to respond to that. From the standpoint, are you asking, pardon me...are you asking from the standpoint of requesting that on behalf of a provider carrier that has least capacity? Yes. Or as member of the public at large?

Just to clarify your question. Yes. As on behalf of somebody who has capacity, yes. I see. For now, I would offer you should contact me directly. Okay. I'll put my GSN email in the chat forum. And at that point, either Erik or I, or both of us together will work with you in that regard. Thank you. Thank you.

Thank you. Katie Heidorn. Hi, my name is Katie Heidorn, I'm Executive Director of Insure the Uninsured Project, we're a health policy organization and just want to say thank you for the incredibly informative meeting today. And looking forward to reviewing all of the materials after this meeting in detail. Just had some questions and almost a comment, we're working with to really bring the potential anchor institutions, hospitals, and possibly federally-qualified health clinics to the table to make sure that they're included in both the middle mile and last mile conversations in their communities, but also at this level and trying to engage them. Just curious, has mapping been done around those institutions in addition to sort of educational institutions and libraries, or is it planned for that? Thanks so much.

Mr. Monroe, can you please answer the question? Certainly.

And actually, I would, so as I noted earlier, the Public Utilities Commission has gone through an analysis in identifying the initial 9,470 miles. And I believe that analysis included the anchor or the anchor institutions. So, I don't know if Mr. Osborn has any more details on that. But I know that that is one of the important lenses that was identified in SB 156. And it was something that was included in those maps.

Thank you, Mr. Monroe. So, for those in person, if you can please line up at the designated area, which is if you're facing, if you're looking at the dais from the audience on the left, you will see a little area with a lecture and microphone, please line up there leaving enough room for everyone to socially distance themselves for public health purposes. When it's your turn to provide public

comment, please press the push button on the microphone console to speak. The console will, apologies, the console will show a bright green light when your microphone is on. Please click that same push button to turn your microphone off.

Thank you, Jules, we have no one in the room.

Okay. We did have a couple more people submit public comments online. And Miss Heidorn, did we address your question there? I'm looking for your name to, uh...please go ahead.

Thank you so much. I just want to make sure the question was submitted. Yeah, I just wanted to maybe a follow up to what Mr. Monroe said. What type of outreach is being done to those health institutions in particular? Are there opportunities to engage them in stakeholder conversations or you're going beyond the mapping since you're doing multiple roundtables and things like that.

Given the time constraints, we are going to have somebody follow up if you send that via the email account, so we can ensure this is public comment in that Q&A. And we'll be happy to have somebody follow up.

Thank you.

And then we will attach the public comment submitted by Scott Pullman and Diana Zake to the minutes and recap. It does not appear that we have any more of the public comments today. Chair Nichols.

Thank you, Jules. I appreciate that. Let me take one last question to the committee members, any closing comments for the group? And any from the members online? With that, thank you all for attending today. Middle-Mile is obviously a huge undertaking, it is very exciting to see the progress that's been made. I want to thank all of the parties across the agencies who are working so diligently to do this and for our presentations today. So, thank you very much. Our next committee meetings will be June 17th and then in July...July 22. Following that, the committee at this point anticipates moving to a quarterly schedule for our committee meetings. And thank you again for joining us. We look forward to seeing you in June. And with that, the committee is adjourned. Thank you.



April 27, 2022

The Honorable Toni Atkins
President pro Tempore, California State Senate



The Honorable Anthony Rendon
Speaker, California State Assembly



The Honorable Nancy Skinner
Chair, Senate Committee on Budget and Fiscal Review



The Honorable Phil Ting
Chair, Assembly Committee on Budget



RE: Recommendations for California’s Utilization of Federal Funding in FY 2022-23 and 2023-24

Dear Legislative and Budget Committee Leaders,

The infrastructure bill passed by Congress in November 2021 includes a historic investment of \$65 billion to ensure every business and family in America has access to affordable, reliable high-speed internet. The majority of these funds will flow directly to the states. While this new investment is a major step toward closing the digital divide, there is also widespread concern among government officials and connectivity advocates on the best ways for states to manage this new broadband funding. States must address how to ensure that broadband is accessible, affordable, and adopted in all areas.

This funding allocation is even more critical as California's landmark \$6 billion investment in a statewide broadband plan begins to be implemented. As this network expands and enables more last-mile service connections, underserved and unserved California households will require support beyond last-mile connections. Common Sense and NextGen California recommend the following strategies to effectively utilize federal funding for technical support, school technology, and devices.

"Connect CA Kids" Program

In California, over 1 million students currently rely on the Emergency Connectivity Fund for their school laptop, tablet, and/or home internet connection. However, the ECF will soon run out of funding, forcing many of these students to fall back into the digital divide. To prevent this, schools need a source of funding to replace the ECF. Fortunately, the U.S. Department of Treasury has ruled that American Rescue Plan Act (ARPA) State Recovery Funds and Capital Projects Funds, which grant California \$27 billion and \$540 million, respectively, may be used for this purpose.

We recommend California allocate a portion of its ARPA Funds to create a state “Connect CA Kids” program to replace and improve on the ECF model. Like the ECF, schools would participate by identifying which students lack a device, providing devices to those students, and submitting expenses to the “Connect CA Kids” program for reimbursement. There also would be opportunities to expand the program to public housing, community colleges, and community broadband organizations.

Affordable Connectivity Program

We recommend that California use a portion of its Capital Projects Funds (CPF) to issue grants to organizations that promote the Affordable Connectivity Program (ACP). Such a use would qualify for CPF because the ACP enables digitally divided households to access work, education, and health monitoring. The ACP has a budget of \$14 billion and current estimates suggest this will last around five years. By boosting ACP enrollment, California would shrink its digital divide, bring more federal money to the state, and incentivize continued federal support for the ACP.

A state grant program could be structured like the FCC's upcoming ACP outreach grant program, which will issue grants to organizations that conduct ACP outreach, enrollment, and digital inclusion activities. This structure is advantageous because it leverages existing community-based organizations, which have experience working with eligible populations. Their local expertise is critical when promoting the ACP because of the multitude of languages, cultures, and trusted information sources among eligible populations.

Middle-Mile Broadband Initiative

We applaud the Middle-Mile Advisory Committee and the CA Department of Technology for the speed and transparency involved in the planning of the middle-mile network. This open-access middle-mile network is expanding broadband infrastructure to bring equitable high-speed service to all parts of California. The project is entirely funded by the \$3.25 billion ARPA funding as included in Senate Bill 156 (2021), however, this is estimated to only build out approximately 6,000 miles of the proposed 8,100-mile system.

The budget concerns expressed in the recent [LAO Report](#),¹ and by legislative members in the March Middle-Mile Advisory Committee meeting demonstrate the need to consider additional funding. With projected expenses totalling nearly \$3.7 billion rather than the budgeted \$3.25 billion and increasing costs due to supply chain issues, we recommend the CA Legislature consider allocating additional funds to this effort, especially as cost estimates are updated.

Multi-Family Residential Housing

Broadband maps help states identify areas that lack broadband infrastructure. However, the maps provided by the Federal Communications Commission only measure infrastructure to Multi Dwelling Units (MDUs), not *within* them. This is a problem because broadband infrastructure can extend to an MDU, but bad internal wiring, disrepair, or low bandwidth can nevertheless render its residents unable to connect. In these situations, the FCC would still consider these residents "served." In California, where [17% of the population](#)² lives in MDUs, this not only means the state will receive less Broadband Equity, Access & Deployment Program (BEAD) funding, it also means that many high-poverty urban areas will be ineligible for help.

¹Legislative Analyst Office (LAO). Overview of the Middle-Mile Broadband Initiative. February 16, 2022. Accessed: <https://lao.ca.gov/handouts/socservices/2022/Broadband-Initiative-021622.pdf>

² National Multifamily Housing Council. Geography of Apartment Residents. Accessed: <https://www.nmhc.org/research-insight/quick-facts-figures/quick-facts-resident-demographics/geography-of-apartment-residents/>

We are encouraged by the CPUC's data collection and mapping efforts and recommend prioritizing collecting supplemental information to identify which households in an MDU lack access to reliable broadband service. This data will allow California to challenge FCC maps, explore more efficient uses of the Infrastructure Investment & Jobs Act (IIJA) funds, and potentially receive a larger overall BEAD award. We recommend the state allocate additional funding for the CPUC to validate, geomatch, and finalize all of the necessary data.

CA Connect Corps

We are committed to developing and supporting programs that will begin to meaningfully bridge the digital divide and increase diversity in the tech industry. We urge a one-time allocation of at least \$25 million to fund and scale two initiatives: (1) a California Connect Corps composed of digital navigators, and (2) a Full-Stack Web Developer Coding Program. Funding would be used to recruit and train as well as provide internships and job placement assistance. These dual program components would not only help close the digital divide but also help prepare individuals from all walks of life for a career in information technology.

AssistHub Pilot in Alameda County to boost Human Services Benefits Utilization

We also support AssistHub's state budget proposal to create a public benefits utilization pilot in Alameda County. This investment will advance Common Sense's missions to eliminate barriers that keep low-income families from accessing needed resources and services. Only 1 in 10 families receive the full suite of governmental benefits for which they are eligible, in part because these resources are too hard to find and too difficult to obtain. By developing a solution that provides easy navigation to benefits and meeting people where they are through individualized coaching, the existing small scale AssistHub program has exhibited promising benefit utilization and take-up rates.

Over the last two years, AssistHub has helped over 30,000 Californians access cash assistance to keep their housing, stay in college, and get food. Supporting the AssistHub pilot will not only ensure that more Alameda County residents access safety net programs, but also provide evidence we can leverage to catalyze unprecedented levels of benefits utilization across our state.

Sincerely,



Marvin J. Deon II
Vice President, CA Policy
Common Sense Media



Arnold Sowell Jr.
Executive Director
NextGen California



County of Santa Cruz

BOARD OF SUPERVISORS

MANU KOENIG
FIRST DISTRICT

ZACH FRIEND
SECOND DISTRICT

RYAN COONERTY
THIRD DISTRICT

GREG CAPUT
FOURTH DISTRICT

BRUCE MCPHERSON
FIFTH DISTRICT

May 11, 2022

California Public Utilities Commission
ATTN: Alice Busching Reynolds, President

RE: Support for Middle-Mile Network Connectivity In Santa Cruz County's Mountainous Region

Dear President Reynolds,

I appreciate the California Public Utilities Commission's contributions toward the statewide open-access middle-mile network. In Santa Cruz County, the lack of available middle-mile broadband infrastructure has been a significant barrier in connecting Santa Cruz County's unserved mountainous communities. A middle-mile project along Granite Creek Rd. or the Summit Rd. corridor could provide the backbone necessary for last-mile providers to adequately serve the needs of residents living in the County's more challenging-to-reach mountainous region.

The County of Santa Cruz is actively working to improve broadband connectivity and ensure residents have access to broadband internet service that meets our community's modern-day connectivity needs. In addition to the digital divide highlighted during the COVID-19 Pandemic, inequities in broadband service were further illustrated during the 2020 CZU Lightning Complex Fires, which devastated the Santa Cruz and San Mateo communities spanning 86,500 acres, destroying over 1400 structures, damaging critical utility connections and infrastructure, and taking the life of a beloved Santa Cruz County Veteran. Amidst this emergency, many County residents residing in the mountainous region were unable to place outbound calls or receive the reverse 911 emergency

Page 2

RE: SUPPORT FOR MIDDLE-MILE NETWORK CONNECTIVITY

May 11, 2022

notifications sent out by the County. The devastating impacts of the CZU fire are felt today, with residents fearing the loss of property and, more importantly, the loss of life.

I have visited schools, community-centered facilities, and constituent homes in the Summit, Happy Valley, and surrounding communities to experience this issue firsthand. Parents, agency partners, homeowners, and school administrators have continued to voice their frustrations and associated fears, the two most prominent being reduced public safety and disrupted educational attainment. Within the 1st district, approximately 2 thousand residents reside in the harder-to-reach mountainous region. Notably, 500 residents, not including underage youth, live near or along the Granite Creek corridor and stand to benefit from improved broadband services.

Constituents who attended this year's *Happy Valley* and *Summit* Townhalls, which took place in person and via Zoom, noted that they preferred to participate remotely; however, their household internet speeds were not fast enough to provide a stable Zoom connection despite living less than a mile away. Constituents in attendance also expressed concern with the exacerbated quotes received from Providers in the region. Given the lack of access in these regions to nearby middle-mile fiber, service providers have quoted residents 50 to 60 thousand dollars to connect their households to the broadband network. Despite being such a critical component of our society's everyday life, a 50,000-dollar financial investment for improved access to the internet is an investment many residents cannot afford.

I encourage the CPUC to strongly consider recommending future middle mile projects that would serve the needs of Santa Cruz County residents living in the hard-to-reach mountainous regions. Thank you for your time, and I appreciate your attention to this matter.

Sincerely,

A handwritten signature in blue ink that reads "Manu Koening". The signature is stylized and includes a large, sweeping flourish at the end.

MANU KOENIG, Supervisor
First District

Page 3

RE: SUPPORT FOR MIDDLE-MILE NETWORK CONNECTIVITY

May 11, 2022

MK:cs

CC: Representative Jimmy Panetta
Representative Anna Eshoo
Senator John Laird
Assemblymember Mark Stone
Assemblymember Robert Rivas
Middle-Mile Advisory Committee